

## SEQUENCE LISTING

## (1) GENERAL INFORMATION:

- 5 (i) APPLICANT: Fang Fang
- (ii) TITLE OF INVENTION: IDENTIFYING PEPTIDE LIGANDS OF TARGET PROTEINS WITH TARGET COMPLEMENTARY LIBRARY TECHNOLOGY (TCLT)
- 10 (iii) NUMBER OF SEQUENCES: 18
- (iv) CORRESPONDENCE ADDRESS:
- (A) ADDRESSEE: Lucy X. Yang
- (B) STREET: 3718 Winding Way
- 15 (C) CITY: Kalamazoo
- (D) STATE: MI
- (E) COUNTRY: USA
- (F) ZIP: 49004
- 20 (v) COMPUTER READABLE FORM:
- IBM, Microsoft Word 6.0
- (vi) CURRENT APPLICATION DATA:
- (A) APPLICATION NUMBER:
- 25 (B) FILING DATE:
- (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
- (A) NAME: Lucy X. Yang
- 30 (B) REGISTRATION NUMBER: 40,259
- (ix) TELECOMMUNICATION INFORMATION:
- (A) TELEPHONE: 616-385-5824
- 35 (B) TELEFAX: 616-385-5824
- (2) INFORMATION FOR SEQ ID NO:1:
- (i) SEQUENCE CHARACTERISTICS:
- 40 (A) LENGTH: 45 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (E) FEATURE: X residue designated in (XXX)n can be A, C, T, U,
- 45 or G; n can be any integer.
- (ii) MOLECULE TYPE: DNA
- (iii) HYPOTHETICAL: NO
- 50 (iv) ANTI-SENSE: NO
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

55 ctgtcagggc ccgaggggct (XXX)nggggccg ctgcggcctg tcagg 45

## (2) INFORMATION FOR SEQ ID NO:2:

- 60 (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5 amino acids
- (B) TYPE: amino acids
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- 65 (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

5

Glu Thr Ser Val Ser  
1 5

10 (2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 6 amino acids  
(B) TYPE: amino acids  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

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(ii) MOLECULE TYPE: peptide

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(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

25

Ser Cys Asp Glu Pro Lys  
1 5

30 (2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10 amino acids  
(B) TYPE: amino acids  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

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(ii) MOLECULE TYPE: peptide

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(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

45

Lys Gln Leu Leu Leu Pro Gly Asn Asn Arg  
1 5 10

50 (2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 8 amino acids  
(B) TYPE: amino acids  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

55

(ii) MOLECULE TYPE: peptide

60

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

65

Pro Asp Gly Glu Ser Thr Ala Lys  
1 5

(2) INFORMATION FOR SEQ ID NO:6:

- 5 (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 13 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear  
 10 (E) FEATURES: Xaa at position 3 can be Arg or Glu; Xaa at  
 position 6 can be Pro, His or Thr; Xaa at position 7 can be Gly or Ala;  
 Xaa at position 8 can be Lys or Glu; Xaa at position 9 can be Gly, Gln,  
 Arg or Ala; Xaa at position 11 can be Gln or Gly; Xaa at position 13 can  
 be Met or Ile.  
 15 (ii) MOLECULE TYPE: peptide  
 (iii) HYPOTHETICAL: NO  
 20 (iv) ANTI-SENSE: NO  
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

25 Trp Val Xaa Glu Ala Xaa Xaa Xaa Xaa Leu X Trp Xaa Gly  
1 5 10

## (2) INFORMATION FOR SEQ ID NO:7:

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30      (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 14 amino acids
          (B) TYPE: amino acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear
35      (ii) MOLECULE TYPE: peptide

          (iii) HYPOTHETICAL: NO

          (iv) ANTI-SENSE: NO
40      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

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Trp Ile Arg Glu Pro Pro Gly Lys Ala Leu Gln Trp Leu Ala  
1 5 10

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:  
50 (A) LENGTH: 14 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(E) FEATURES: Xaa at position 2 can be Val or Ile; Xaa at  
55 position 3 can be Arg or His; Xaa at position 6 can be Pro or Glu; Xaa at  
position 10 can be Leu or Pro; Xaa at position 11 can be Gln or Val; Xaa  
at position 12 can be Trp, Tyr or Leu; Xaa at position 14 can be Ser, Ala  
or Gly.
- 60 (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (iv) ANTI-SENSE: NO
- 65 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Trp Xaa Xaa Glu Ala Xaa Gly Lys Gly Xaa Xaa Xaa Val Xaa

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1 5 10

(2) INFORMATION FOR SEQ ID NO:9:

- 5 (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 14 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 10 (D) TOPOLOGY: linear  
 (E) FEATURES: Xaa at position 2 can be Ile or Val.

(ii) MOLECULE TYPE: peptide

- 15 (iii) HYPOTHETICAL: NO  
 (iv) ANTI-SENSE: NO  
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

20 Trp Xaa Arg Glu Pro Pro Gly Lys Gly Leu Gln Trp Ile Gly  
 1 5 10

25 (2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 14 amino acids  
 30 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear  
 (E) FEATURES: Xaa at position 9 can be Gly or Gln.

(ii) MOLECULE TYPE: peptide

- 35 (iii) HYPOTHETICAL: NO  
 (iv) ANTI-SENSE: NO  
 40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Trp Val Arg Glu Met Pro Gly Lys Xaa Leu Gln Trp Met Gly  
 1 5 10

45 (2) INFORMATION FOR SEQ ID NO:11:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 14 amino acids  
 50 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

- 55 (iii) HYPOTHETICAL: NO  
 (iv) ANTI-SENSE: NO  
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

60 Trp Ile Arg Glu Ser Pro Ser Arg Gly Leu Gln Trp Leu Gly  
 1 5 10

65 (2) INFORMATION FOR SEQ ID NO:12:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 15 amino acids

(B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear  
 (E) FEATURES: Xaa at position 8 can be Glu or Lys; Xaa at 9  
 5 position can be Pro, Ser or Ala

(ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

10

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

15 Trp Tyr Glu Glu Lys Pro Gly Xaa Xaa Pro Lys Leu Ley Ile Tyr  
 1 5 10 15

(2) INFORMATION FOR SEQ ID NO:13:

20

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

25

(D) TOPOLOGY: linear

(E) FEATURES: Xaa at position 10 can be Glu or Asp

(ii) MOLECULE TYPE: peptide

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(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

35

Pro Asp Ala Leu His Gly Pro Phe Ala Xaa Leu Pro His Pro  
 1 5 10

40 (2) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 amino acids

(B) TYPE: amino acid

45

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(E) FEATURES: Xaa at position 5 can be Gly or Arg; Xaaa at  
 position 10 can be Glu or Asp

50 (ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Pro Asp Ala Leu Xaa Gly Pro Phe Ala Xaa Leu Pro Asn Pro  
 1 5 10

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(2) INFORMATION FOR SEQ ID NO:15:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide  
(iii) HYPOTHETICAL: NO  
5 (iv) ANTI-SENSE: NO  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:  
10 Pro Val Leu Leu Phe Arg Pro Leu Arg Gly Phe Gln Gln Asp Ile  
1 5 10 15  
(2) INFORMATION FOR SEQ ID NO:16:  
15 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 13 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
20 (D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: DNA  
(iii) HYPOTHETICAL: NO  
25 (iv) ANTI-SENSE: NO  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:  
30 ggccgacgtg gcc 13  
(2) INFORMATION FOR SEQ ID NO:17:  
35 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 12 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
40 (D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: DNA  
(iii) HYPOTHETICAL: NO  
45 (iv) ANTI-SENSE: NO  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:  
50 gacgtggcct gt 12  
(2) INFORMATION FOR SEQ ID NO:18:  
55 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 16 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
60 (D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: DNA  
(iii) HYPOTHETICAL: NO  
(iv) ANTI-SENSE: NO  
65 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

ggccgacgtg gcctgt

16

- 5 (2) INFORMATION FOR SEQ ID NO:19:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- 10 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA
- (iii) HYPOTHETICAL: NO
- 15 (iv) ANTI-SENSE: NO
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:
- 20 ccctcatagt taagcgtaac g

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